

## fzr (K-15): sc-19399

### BACKGROUND

Fizzy-related protein, known as fzr, is a conserved eukaryotic gene that has been recently identified as a 7WD domain family member and is implicated in cell cycle regulation of *Drosophila* and yeast. Retroviral overexpression of fzr in B-lymphoma cells reduces tumor formation. Fzr overexpression increases B-lymphoma cell susceptibility to natural killer cell (NK) cytotoxicity. Fzr has been implicated in a new category of genes which suppress B cell tumorigenesis. Current research suggests a novel role for fzr in the target cell interaction with NK cells. fzr also negatively regulates the levels of cyclins A, B and B3. Loss of fzr causes progression through an extra division cycle in the epidermis and inhibition of endoreduplication in the salivary gland, in addition to failure of cyclin removal. Conversely, premature fzr overexpression downregulates mitotic cyclins, inhibits mitosis and transforms mitotic cycles into endoreduplication cycles.

### REFERENCES

1. Sigrist, S.J. and Lehner, C.F. 1997. *Drosophila* fizzy-related downregulates mitotic cyclins and is required for cell proliferation arrest and entry into endocycles. *Cell* 4: 671-681.
2. Inbal, N., Listovsky, T. and Brandeis, M. 1999. The mammalian Fizzy and Fizzy-related genes are regulated at the transcriptional and post-transcriptional levels. *FEBS Lett.* 3: 350-354.
3. Wang, C.X., Fisk, B.C., Wadehra, M., Su, H. and Braun, J. 2000. Overexpression of murine fizzy-related (fzr) increases natural killer cell-mediated cell death and suppresses tumor growth. *Blood* 1: 259-263.
4. Yudkovsky, Y., Shteinberg, M., Listovsky, T., Brandeis, M. and Hershko, A. 2000. Phosphorylation of Cdc20/fizzy negatively regulates the mammalian cyclosome/APC in the mitotic checkpoint. *Biochem. Biophys. Res. Commun.* 2: 299-304.
5. Zur, A. and Brandeis, M. 2001. Securin degradation is mediated by fzy and fzr, and is required for complete chromatid separation but not for cytokinesis. *EMBO J.* 4: 792-801.

### CHROMOSOMAL LOCATION

Genetic locus: FZR1 (human) mapping to 19p13.3.

### SOURCE

fzr (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of fzr of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19399 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### APPLICATIONS

fzr (K-15) is recommended for detection of fzr of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

fzr (K-15) is also recommended for detection of fzr in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for fzr siRNA (h): sc-44349, fzr shRNA Plasmid (h): sc-44349-SH and fzr shRNA (h) Lentiviral Particles: sc-44349-V.

Molecular Weight of fzr: 55 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or SK-N-MC cell lysate: sc-2237.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


 MONOS  
 Satisfaction  
 Guaranteed

Try **fzr (DCS-266): sc-56312** or **fzr (AR38.2): sc-53291**, our highly recommended monoclonal alternatives to fzr (K-15).